

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	0	("bismuthadj(sulfateortrioxideorcarbonate)orsodiumbismuthate").FN.	EPO; JPO; DERWENT	OR	OFF	2008/05/21 16:16
S2	12	(bismuth adj sulfate or bismuth adj trioxide or bismuth adj carbonate or sodium adj bismuthate) and grease	EPO; JPO; DERWENT	OR	ON	2008/05/21 16:17
S3	10	S2 and oil	EPO; JPO; DERWENT	OR	ON	2008/05/21 16:18
S4	0	S3 and thickner	EPO; JPO; DERWENT	OR	ON	2008/05/21 16:18
S5	36	(bismuth adj sulfate or bismuth adj trioxide or bismuth adj carbonate or sodium adj bismuthate) and grease	US-PGRUB; USPAT; USOCR	OR	ON	2008/05/21 16:19
S6	0	S5 and oil and thickner	US-PGRUB; USPAT; USOCR	OR	ON	2008/05/21 16:20
S7	27	S6 and oil	US-PGRUB; USPAT; USOCR	OR	ON	2008/05/21 16:20
S8	1087	((508/165) or (508/180) or (508/591) or (508/597) or (508/551) or (508/627)). CCLS.	US-PGRUB; USPAT; USOCR	OR	OFF	2008/05/27 12:04
S9	36	(bismuth adj sulfate or bismuth adj trioxide or bismuth adj carbonate or sodium adj bismuthate) and grease	US-PGRUB; USPAT; USOCR	OR	ON	2008/05/27 12:05
S10	27	S9 and oil	US-PGRUB; USPAT; USOCR	OR	ON	2008/05/27 12:05
S11	3	S8 and S10	US-PGRUB; USPAT; USOCR	OR	ON	2008/05/27 12:05
S12	17	US-1007034-\$.DID. OR JP-10017884-\$.DID. OR JP-08041478-\$.DID. OR JP-2001247888-\$.DID. OR US-1007034-\$.DID. OR US-5773394-\$.DID. OR US-6090755-\$.DID. OR US-20010002939-\$.DID. OR US-4840740-\$.DID. OR US-1030096-\$.DID. OR US-1163305-\$.DID. OR DE-69708726-\$.DID. OR EP-0795598-\$.DID. OR US-1002587-\$.DID. OR JP-10324885-\$.DID. OR JP-1017884-\$.DID. OR JP-2001221243-\$.DID. OR JP-2001104747-\$.DID. OR DE-19935014-\$.DID. OR JP-11132242-\$.DID. OR JP-2000201950-\$.DID. OR EP-1464835-\$.DID. OR JP-2003184729-\$.DID. OR JP-2003214321-\$.DID. OR JP-2003278637-\$.DID. OR JP-2003301837-\$.DID. OR JP-2003343414-\$.DID. OR JP-200444477-\$.DID. OR JP-200460506-\$.DID. OR JP-200468622-\$.DID. OR JP-2004183531-\$.DID. OR WO-0352268-\$.DID. OR JP-6346299-\$.DID. OR DE-3700974-\$.DID. OR US-2592891-\$.DID. OR US-2185492-\$.DID. OR US-6112791-\$.DID. OR JP-0841478-\$.DID. OR JP-10183161-\$.DID.	US-PGRUB; USPAT; USOCR	OR	ON	2008/05/27 12:08

		OR JP-02256020-\$.DID. OR JP-1130236-\$.DID. OR JP-10030096-\$.DID. OR JP-10017884-\$.DID. OR JP-12032003-\$.DID. OR JP-2004044477-\$.DID. OR JP-02122004-\$.DID. OR JP-2004060506-\$.DID. OR JP-02262004-\$.DID. OR JP-2004068622-\$.DID. OR JP-03042004-\$.DID. OR JP-07022004-\$.DID. OR WO-03052268-\$.DID. OR JP-63046299-\$.DID. OR JP-02271988-\$.DID. OR DE-32700974-\$.DID. OR JP-61012791-\$.DID. OR JP-01211986-\$.DID. OR JP-08041478-\$.DID. OR JP-02131996-\$.DID. OR JP-07141998-\$.DID. OR JP-02256920-\$.DID. OR JP-10171990-\$.DID. OR JP-11030236-\$.DID. OR JP-02021999-\$.DID.				
S13	78	US-1007034-\$.DID. OR JP-10017884-\$.DID. OR JP-08041478-\$.DID. OR JP-2001247888-\$.DID. OR US-1007034-\$.DID. OR US-5773394-\$.DID. OR US-6090755-\$.DID. OR US-20010002939-\$.DID. OR US-4840740-\$.DID. OR US-1030096-\$.DID. OR US-1163305-\$.DID. OR DE-69708726-\$.DID. OR EP-0795598-\$.DID. OR US-1002587-\$.DID. OR JP-10324885-\$.DID. OR JP-1017884-\$.DID. OR JP-2001221243-\$.DID. OR JP-2001104747-\$.DID. OR DE-19935014-\$.DID. OR JP-11132242-\$.DID. OR JP-2000201950-\$.DID. OR EP-1464835-\$.DID. OR JP-2003184729-\$.DID. OR JP-2003214321-\$.DID. OR JP-2003278637-\$.DID. OR JP-2003301837-\$.DID. OR JP-2003343414-\$.DID. OR JP-200444477-\$.DID. OR JP-200460506-\$.DID. OR JP-200468622-\$.DID. OR JP-2004183531-\$.DID. OR WO-0352268-\$.DID. OR JP-6346299-\$.DID. OR DE-3700974-\$.DID. OR US-2592891-\$.DID. OR US-2185492-\$.DID. OR US-6112791-\$.DID. OR JP-0841478-\$.DID. OR JP-10183161-\$.DID. OR JP-02256020-\$.DID. OR JP-1130236-\$.DID. OR JP-10030096-\$.DID. OR JP-10017884-\$.DID. OR JP-12032003-\$.DID. OR JP-2004044477-\$.DID. OR JP-02122004-\$.DID. OR JP-2004060506-\$.DID. OR JP-02262004-\$.DID. OR JP-2004068622-\$.DID. OR JP-03042004-\$.DID. OR JP-07022004-\$.DID. OR WO-03052268-\$.DID. OR JP-63046299-\$.DID. OR JP-02271988-\$.DID. OR DE-32700974-\$.DID. OR JP-61012791-\$.DID. OR JP-01211986-\$.DID. OR JP-08041478-\$.DID. OR JP-02131996-\$.DID. OR JP-07141998-\$.DID. OR JP-02256920-\$.DID. OR JP-10171990-\$.DID. OR JP-11030236-\$.DID. OR JP-02021999-\$.DID.	US-PGRUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/27 12:09
S14	0	S10 and S13	US-PGRUB; USPAT; USOCR	OR	ON	2008/05/27 12:09
S15	0	S9 and S13	US-PGRUB; USPAT; USOCR	OR	ON	2008/05/27 12:12

S16	0	S10 and S13	US-PGRUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/27 12:14
S17	25	"MIKAMI, HIDENOBU".in.	US-PGRUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/27 12:15
S18	892	"NTN CORPORATION".as.	US-PGRUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/27 12:16
S19	909	S17 or S18	US-PGRUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/27 12:16
S20	1	S11 and S19	US-PGRUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2008/05/27 12:16
S21	205	(508/165).CQLS	US-PGRUB; USPAT; USOCR	OR	OFF	2008/05/27 15:40
S22	14	S21 and bismuth	US-PGRUB; USPAT; USOCR	OR	ON	2008/05/27 15:45
S23	12	"5589443"	USPAT	OR	OFF	2009/07/17 16:02
S24	57	oil and (thickener or thicken\$4) and (mineral or ether or olefin) adj oil and viscosity near "40"	USPAT	OR	OFF	2009/07/17 16:05
S25	175	oil and (thickener or thicken\$4) and (mineral or ether or olefin) adj oil and viscosity near "40"	US-PGRUB; USPAT; USOCR	OR	OFF	2009/07/17 16:05
S26	69	S25 and grease	US-PGRUB; USPAT; USOCR	OR	OFF	2009/07/17 16:06
S27	7	S26 and bismuth	US-PGRUB; USPAT; USOCR	OR	OFF	2009/07/17 16:06
S28	3	S27 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2009/07/17 16:07
S29	70	S25 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	ON	2009/07/17 16:10
S30	10	(bismuth adj (sulfate or trioxide or carbonate) or sodium adj bismuthate) and "508".clas.	US-PGRUB; USPAT; USOCR	OR	ON	2009/07/17 16:29
S31	6	S30 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	ON	2009/07/17 16:30
S32	17	(bismuth adj (sulfate or trioxide or carbonate) or sodium adj bismuthate) and (lubricant or lubricat\$4)	FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/17 16:36
S33	8	S32 and @pd< "20040209"	FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/17 16:36
S34	4	bismuth near sulfate and (antiwear or wear adj inhibit\$4)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2009/07/17 16:45

S35	147	bismuth near sulfate and (lubricant or lubricat\$4)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2009/07/17 16:48
S36	418	(bismuth adj (sulfate or trioxide or carbonate) or sodium adj bismuthate) and (lubricant or lubricat\$4)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/17 16:48
S37	8	S36 and @pd< "20040209"	FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/17 16:48
S38	253	S36 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2009/07/17 16:49
S39	261	S37 or S38	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/17 16:49
S40	13	S39 and grease	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/07/17 16:49
S41	25	S29 and (wear or antiwear)	US-PGRUB; USPAT; USOCR	OR	ON	2009/07/17 17:19
S42	864	viscosity with "40" and "508".clas.	USPAT	OR	OFF	2009/07/18 21:05
S43	3837	viscosity with "40" and "508".clas.	US-PGRUB; USPAT; USOCR	OR	OFF	2009/07/18 21:06
S44	1409	S43 and (thicken\$4)	US-PGRUB; USPAT; USOCR	OR	OFF	2009/07/18 21:06
S45	376	S44 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2009/07/18 21:07
S46	322	S45 and (polyalphaolefin or poly adj olefin or mineral or ether adj oil)	US-PGRUB; USPAT; USOCR	OR	ON	2009/07/18 21:31
S47	16	S46 and bismuth	US-PGRUB; USPAT; USOCR	OR	ON	2009/07/18 21:34
S48	0	(59/081394).APP.	JPO; DERWENT	OR	OFF	2009/08/26 14:44
S49	1	("5981394").PN.	JPO; DERWENT	OR	OFF	2009/08/26 14:44
S50	0	JP-5981394-\$.did.	JPO	OR	OFF	2009/08/26 14:47
S51	1	JP-59081394-\$.did.	JPO	OR	OFF	2009/08/26 14:48
S52	1	JP-59081394-\$.did.	DERWENT	OR	OFF	2009/08/26 14:51
S53	39	metal adj working and viscosity near "40"	US-PGRUB; USPAT; USOCR	OR	ON	2009/08/31 06:41
S54	12	S53 and grease	US-PGRUB; USPAT; USOCR	OR	ON	2009/08/31 06:41
S55	4	S54 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 06:42

S56	352	metal adj working and viscosity with "40"	US-PGRUB; USPAT; USOCR	OR	ON	2009/08/31 06:47
S57	170	S56 and @ad<"20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 06:47
S58	109	S57 and "508".clas.	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 06:47
S59	105	S58 not S55	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 06:47
S60	1	S59 and lithium near (soap or thicken\$4)	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 07:04
S61	2	S59 and lithium with (soap or thicken\$4)	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 07:05
S62	52	S59 and grease	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 07:05
S63	31	S62 and lithium	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 07:28
S64	26	lithium near (soap or thicken\$4) and viscosity near "40"	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 07:49
S65	22	S64 and ("508" or "252").clas.	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 07:49
S66	8	S65 and working	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 07:49
S67	2	S66 and @ad<"20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 07:49
S68	1	"4879045".pn.	US-PGRUB; USPAT; USOCR	OR	OFF	2009/08/31 07:52
S69	633	(metal adj working or pressing or grinding) and (lithium with (thickener or soap))	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/08/31 07:57
S70	369	S69 and @ad<"20040209"	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2009/08/31 07:57
S71	2137	oil near viscosity with "40"	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2009/08/31 07:57
S72	2484	oil near viscosity with "40"	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/08/31 07:58
S73	5	S70 and S72	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/08/31 07:58
S74	11409	(oil or baseoil or base adj oil or basestock) with viscosity with "40"	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/08/31 08:00

S75	3298	S74 and (thicken\$4 or soap)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/08/31 08:01
S76	922	S75 and @ad<"20040209"	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2009/08/31 08:01
S77	333	S76 and grease	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2009/08/31 08:02
S78	25	S77 and (metal adj working or grinding or pressing) with (lubricant or fluid or lubricat \$4)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2009/08/31 08:02
S79	0	metal adj working and lithium adj thickner and (polyalphaolefin or pao)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2009/08/31 08:10
S80	0	metal adj working and lithium near thickner and (polyalphaolefin or pao)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/08/31 08:10
S81	0	metal adj working and lithium near thickner	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/08/31 08:10
S82	32	metal adj working and lithium near soap	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/08/31 08:11
S83	3	metal adj working and lithium near soap and (polyalphaolefin or pao)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/08/31 08:11
S84	4	"4201681".pn.	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2009/08/31 08:13
S85	2	metal adj working and grease with lithium adj soap	USPAT	OR	ON	2009/08/31 08:17
S86	23	grease and (bismuth near (carbonate or sulfate) or sodium adj bismuthate)	US-PGRUB; USPAT; USOCR	OR	OFF	2010/03/29 10:42
S87	0	S86 and @pd<"20040209"	FPRS; EPO; JPO; DERWENT	OR	ON	2010/03/29 10:43
S88	10	S86 and @pd<"20040209"	US-PGRUB; USPAT; USOCR	OR	ON	2010/03/29 10:43

S89	15	S86 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	ON	2010/03/29 10:44
S90	514	bearing and (oil or base adj fluid) and viscosity near "40"	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/03/29 13:07
S91	203	S90 and @ad< "20040209"	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/03/29 13:08
S92	42	S90 and @pd< "20040209"	FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/03/29 13:08
S93	7716	bismuth adj oxide or sodium adj bismuthate or bismuth adj carbonate or bismuth adj sulfate	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 14:55
S94	82	S93 and grease	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 14:55
S95	14	S94 and bearing	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 14:56
S96	6	S95 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 14:56
S97	840	S93 and bearing	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 14:57
S98	5	S93 and rolling adj bearing	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 14:58
S99	0	S98 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 14:58
S100	840	S93 and bearing	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 14:58
S101	973	sodium adj bismuthate or bismuth adj carbonate	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 15:04
S102	16	S101 and grease	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 15:04
S103	11	S102 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 15:04
S104	0	S103 and bearing	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 15:04
S105	103	S101 and bearing	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 15:04
S106	70	S105 and @ad< "20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 15:04
S107	25	grease and (sodium adj bismuth\$3 or bismuth adj carbonate)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/04/06 15:06

S108	12	S107 and @ad<"20040209"	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/04/06 15:06
S109	134	bearing and (sodium adj bismuth\$3 or bismuth adj carbonate)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/04/06 15:07
S110	80	S109 and @ad<"20040209"	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/04/06 15:07
S111	581	(oil or lubricant) and (sodium adj bismuth \$3 or bismuth adj carbonate)	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/04/06 15:11
S112	313	S111 and @ad<"20040209"	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/04/06 15:11
S113	54	S112 and bearing	US-PGRUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/04/06 15:12
S114	1	grease and bismuth adj oxide with salt	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:22
S115	1	"508".clas. and bismuth adj oxide with salt	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:22
S116	973	sodium adj bismuthate or bismuth adj carbonate	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:24
S117	16	S116 and grease	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:24
S118	11	S117 and @ad<"20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:24
S119	51	(lubricant or lubricat\$4 adj oil or oil) and bismuth adj oxide with salt	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:25
S120	24	S119 and @ad<"20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:25
S121	239	(lubricant or lubricat\$4 adj oil or oil) and bismuthate	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:27
S122	7	S121 and "508".clas.	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:27
S123	8	grease and bismuthate	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:32



S124	7	"508".clas. and bismuthate	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:34
S125	8	"508".clas. and bismuth adj salt	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:35
S126	20	"508".clas. and bismuth adj oxide	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:37
S127	7	S126 and @ad<"20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:38
S128	24	"508".clas. and bismuth with carbonate	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:46
S129	12	S128 and @ad<"20040209"	US-PGRUB; USPAT; USOCR	OR	OFF	2010/04/06 17:46

9/30/2010 9:17:59 AM

H:\East\Workspaces\grease for rolling bearing containing bismuth10587550a.wsp